**FORM PTO-1449** 

U.S. DEPARTMENT OF JACOMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

APPLICATION NO. 09/972,163

APPLICANT CONFIRMATION NO. 5897

FILING DATE October 4, 2001

APPLICATION NO. 5897

GROUP 1771

US	PA <sup>-</sup>	TENT	DOC	UMENT	S
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF POPPOPRIATE FOR THE POPPOPRIATE
	2,680,696	06/08/54	Broge			JAN 2 0
	4,239,567	12/16/80	Winings			JAN 2 8 2002 TC 1700
	4,243,717	01/06/81	Gahmig			2002
	4,402,927	09/06/83	von Dardel et al.			1C 1700
	4,610,863	09/09/86	Tewari et al.			1700
	4,832,881	05/23/89	Arnold, Jr., et al.			
	4,873,218	10/10/89	Pekala			
	4,997,706	03/05/91	Smits et al.			
	5,190,987	03/02/93	Parkinson			
	5,229,429	07/20/93	Hann et al.			
	5,358,802	10/25/94	Mayer et al.			
	5,420,168	05/30/95	Mayer et al.			
	5,476,878	12/19/95	Pekala			
	5,538,931	07/23/96	Heinrichs et al.			
	5,525,643	06/11/96	Macip-Boulis et al.			
	5,529,971	06/25/96	Kaschmitter et al.			
	5,556,892	09/17/96	Pekala			
	5,565,142	10/15/96	Deshpande et al.			
	5,654,345	08/05/97	Grinshpun et al.			
	5,686,031	11/ 11/97	Coronado et al.			
	5,744,510	04/28/98	Pekala			
	5,795,557	08/18/98	Pajonk et al.			
	5,811,031	09/22/98	Jansen et al.			
	5,851,947	12/22/98	Hair et al.			
	5,869,544	02/09/99	Shmidt et al.			
	5,889,071	03/30/99	Biesmans et al.			
	5,945,084	08/31/99	Droege			
	5,958,363	09/28/99	Coronado			
	5,958,589	09/28/99	Glenn et al.			
	6,077,876	06/20/00	Mendenhall et al.	<u> </u>		
	6,121,337	09/19/00	Hammel et al.	<u> </u>	<u> </u>	

**EXAMINER** 

DATE CONSIDERED

**FORM PTO-1449** 

U.S. DEPARTMENT OF
COMMERCE
PATENT AND TRADEMARK
OFFICE

ATTY. DOCKET NO.
AAC/1 CIP

APPLICATION NO.
09/972,163

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CONFIRMATION
NO.
5897

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE GROUP October 4, 2001

	6,147,134	11/	14/00		Eling				ZIVE
	6,187,831	02/	13/01		Miller et al.			JAN 2 8	2002
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			FOREIG	N P	ATENT DOCU	MENTS		107	700
EXAMINER INITIAL	DOCUMENT		DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
	NUMBER		DATE		COUNTRY	CLASS	SUBCLASS	YES	NO
	FR 2,230,406 A		12/12/7	'4	France	B01J	1/22		Х
	JP 02092860		04/03/9	0	Japan	C04B	35/00	X Abstract	
	WO 99/32218		07/01/9	9	PCT	B01J	13/00	Х	
			1			,	1	l .	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Lawrence Livermore National Labs Materials, Science Bulletin UCRL-TB-117598-37.
	Materials Research Society Bulletin, vol. 15, no. 12 (December 1990).
	G. Carlson et al., "Aerogel Commercialization: Technology, Markets, and Costs," Journal of Non-Crystalline Solids, 186, pp. 372-379 (1995).
	HP. Ebert et al., "The Hot-Wire Method Applied to Porous Materials of Low Thermal Conductivity," High Temperature-High Pressures, 25, pp. 391-402, 13th ECTP Proceedings pp 219-230 (1993).
	S. Hæreid and MA. Einarsrud, "Mechanical Strengthening of TMOS-Based Alcogels by Aging in Silane Solutions," Journal of Sol-Gel Science and Technology, 3, pp. 199-204 (1994).
	L.W. Hrubesh and R.W. Pekala, "Thermal Properties of Organic and Inorganic Aerogels," Journal of Materials Research, 9(3), pp. 731-738 (1994).
	X. Lu et al., "Thermal and Electrical Conductivity of Monolithic Carbon Aerogels," Journal of Applied Physics, 73(2), pp. 581-584 (1993).
	HS. Ma et al., "Mechanical Structure-Property Relationship of Aerogels," Journal of Non-Crystalline Solids, 277, pp. 127-141 (2000).
	R.W. Pekala et al., "Organic Aerogels: Microstructural Dependence of Mechanical Properties in Compression," Journal of Non-Crystalline Solids, 125, pp. 67-75 (1990).
	S.S. Prakash et al., "Silica Aerogel Films Prepared at Ambient Pressure by Using Surface Derivatization to Induce Reversible Drying Shrinkage," Nature, 374, pp. 439-443 (1995).
~	M. Prassas et al., "Synthesis of Monolithic Silica Gels by Hypercritical Solvent Evacuation," Journal of Materials Science, 19, pp. 1656-1665 (1984).
	G.C. Ruben et al., "High-Resolution Transmission Electron Microscopy Nanostructure of Condensed-Silica Aerogels," Journal of Non-Crystalline Solids, 186, pp. 209-218 (1995).
	G.C. Ruben and R.W. Pekala, "High-Resolution Transmission Electron Microscopy of the Nanostructure of Melamine-Formaldehyde Aerogels," Journal of Non-Crystalline Solids, 186, pp. 219-231 (1995).

**EXAMINER** 

DATE CONSIDERED

Sheet <u>3</u> of <u>3</u>

**FORM PTO-1449** 

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTY. DOCKET NO.
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APPLICANT
Donald F. Albert et al.

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	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
EXAMINER INITIAL	TC 1700
	G.W. Scherer, "Stress Development During Supercritical Drying," Journal of Non-Crystalline Solids, 145, pp. 33-40 (1992).
	H. Tamon et al., "Porous Structure of Organic and Carbon Aerogels Synthesized by Sol-Gel Polycondensation of Resorcinol with Formaldehyde," Carbon, 35, pp. 791-796 (1997).

Disclosure Statement to Deposit Account No. 06-1075. A duplicate copy of this letter is transmitted herewith.

Respectfully submitted,

Marta E. Gross (Reg. No. 33,504)
Pablo D. Hendler (Reg. No. 40,015)
Attorneys for Applicants
Nina R. Horan (Reg. No. 47,662)
Agent for Applicants

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# TC 1700

AAC/1 CIP

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicants** 

Donald F. Albert et al.

Application No.

09/972,163

Confirmation No.: 5897

Filed

October 4, 2001

For

ORGANIC, OPEN CELL FOAM MATERIALS, THEIR

CARBONIZED DERIVATIVES, AND METHODS FOR

PRODUCING SAME

Examiner

Not yet assigned

Group Art Unit

1771

New York, New York January 22, 2002

Hon. Commissioner for Patents Washington, D.C. 20231

## INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, applicants, through their attorney, make of record the following documents:\*

### **United States Patents**

Broge	2,680,696	June 8, 1954
Winings	4,239,567	December 16, 1980
Gahmig	4,243,717	January 6, 1981
von Dardel et al.	4,402,927	September 6, 1983
Tewari et al.	4,610,863	September 9, 1986
Arnold, Jr., et al.	4,832,881	May 23, 1989

<sup>\*</sup> For the convenience of the Examiner, a completed Form PTO-1449, listing these documents, is attached.

Pekala	4,873,218	October 10, 1989
Smits et al.	4,997,706	March 5, 1991
Parkinson	5,190,987	March 2, 1993
Hahn et al.	5,229,429	July 20, 1993
Mayer et al.	5,358,802	October 25, 1994
Mayer et al.	5,420,168	May 30, 1995
Pekala	5,476,878	December 19, 1995
Macip-Boulis et al.	5,525,643	June 11, 1996
Kaschmitter et al.	5,529,971	June 25, 1996
Heinrichs et al.	5,538,931	July 23, 1996
Pekala	5,556,892	September 17, 1996
Deshpande et al.	5,565,142	October 15, 1996
Grinshpun et al.	5,654,345	August 5, 1997
Coronado et al.	5,686,031	November 11, 1997
Pekala	5,744,510	April 28, 1998
Pajonk et al.	5,795,557	August 18, 1998
Jansen et al.	5,811,031	September 22, 1998
Hair et al.	5,851,947	December 22, 1998
Shmidt et al.	5,869,544	February 9, 1999
Biesmans et al.	5,889,071	March 30, 1999
Droege	5,945,084	August 31, 1999
Coronado	5,958,363	September 28, 1999
Glenn et al.	5,958,589	September 28, 1999
Mendenhall et al.	6,077,876	June 20, 2000
Hammel et al.	6,121,337	September 19, 2000
Eling	6,147,134	November 14, 2000
Miller et al.	6,187,831 B1	February 13, 2001

#### **FOREIGN PATENT DOCUMENTS**

France FR 2,230,406 A December 12, 1974

Japan JP 02092860 April 3, 1990

PCT WO 99/32218 July 1, 1999

#### **ARTICLES**

Lawrence Livermore National Labs Materials, Science Bulletin UCRL-TB-117598-37.

Materials Research Society Bulletin, vol. 15, no. 12 (December 1990).

- G. Carlson et al., "Aerogel Commercialization: Technology, Markets, and Costs," Journal of Non-Crystalline Solids, 186, pp. 372-379 (1995).
- H.-P. Ebert et al., "The Hot-Wire Method Applied to Porous Materials of Low Thermal Conductivity," High Temperature-High Pressures, 25, pp. 391-402, 13<sup>th</sup> ECTP Proceedings pp 219-230 (1993).
- S. Hæreid and M.-A. Einarsrud, "Mechanical Strengthening of TMOS-Based Alcogels by Aging in Silane Solutions," Journal of Sol-Gel Science and Technology, 3, pp. 199-204 (1994).
- L.W. Hrubesh and R.W. Pekala, "Thermal Properties of Organic and Inorganic Aerogels," Journal of Materials Research, 9(3), pp. 731-738 (1994).
- X. Lu et al., "Thermal and Electrical Conductivity of Monolithic Carbon Aerogels," Journal of Applied Physics, 73(2), pp. 581-584 (1993).
- H.-S. Ma et al., "Mechanical Structure-Property Relationship of Aerogels," Journal of Non-Crystalline Solids, 277, pp. 127-141 (2000).
- R.W. Pekala et al., "Organic Aerogels: Microstructural Dependence of Mechanical Properties in Compression," Journal of Non-Crystalline Solids, 125, pp. 67-75 (1990).
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- H. Tamon et al., "Porous Structure of Organic and Carbon Aerogels Synthesized by Sol-Gel Polycondensation of Resorcinol with Formaldehyde," Carbon, 35, pp. 791-796 (1997).

Some of the documents listed above were cited in an International Search Report that issued in connection with International PCT application PCT/US01/40464, which is the counterpart to United States patent application 09/809,793, from which the present application claims priority. For the Examiner's convenience, a copy of the Search Report is attached hereto.

This Statement is being filed before the issuance of an Office Action on the merits in the present application. Accordingly, no payment of fees is required pursuant to 37 C.F.R. § 1.97(b)(3).

Applicant respectfully requests that these documents be (1) considered by the Examiner prior to issuance of any patent from this application; and (2) printed on

any patent that may issue from this application. Applicant also requests that a copy of enclosed Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

Respectfully submitted,

Marta E. Gross (Reg. No. 33,504)

Pablo D. Hendler (Reg. No. 40,015)

Attorneys for Applicants

nine R. Horren

Nina R. Horan (Reg. No. 47,662)

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Applicants

Donald F. Albert et al.

Application No.

09/972,163

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Examiner

Not yet assigned

JAN 2 8 2002

Group Art Unit

1771

TC 1700

New York, New York January 22, 2002

Hon. Commissioner for Patents Washington, D.C. 20231

# TRANSMITTAL LETTER FOR INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith is an Information Disclosure Statement in the above-identified application. This Statement is submitted:

- [ ] within three months of the application filing date;
- [X] more than three months from the application filing date but before the mailing date of the first Office Action on the merits.

In accordance with 37 C.F.R. § 1.97, submission of this Statement requires no fee. However, if for any reason a fee is due, the Director is hereby authorized to charge payment of any fees required in connection with this Information